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| APPLICATION NO.  | FILING DATE                   | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO.         | CONFIRMATION NO. |
|--|-------------------------------|-------------------------|-----------------------------|------------------|
| 09/846,766   | 04/30/2001<br>7590 07/22/2003 | James Talaric           | 4-01                        | 4613             |
| GREENLEE WINNER AND SULLIVAN P C 5370 MANHATTAN CIRCLE SUITE 201 BOULDER, CO 80303 |                               |                         | EXAMINER RAJGURU, UMAKANT K |                  |
|  |                               |                         |                             |                  |
|  |                               |                         | 1711                        |                  |
|  |                               | DATE MAILED: 07/22/2003 |                             |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |   |  | ()  |
|---|---|--|---|
| 2   | Application No.   | Applicant(s)   |   |
| Office Action Summary   | Examiner  | Group A  | rt Unit   |
| —The MAILING DATE of this communication app   | ears on the cover sheet   | beneath the correspond   | ence address –  |
| Period for Reply  |   |  |   |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SE<br>OF THIS COMMUNICATION.  | T TO EXPIRE3  | MONTH(S) FROM  | THE MAILING DATE  |
| <ul> <li>Extensions of time may be available under the provisions of 37 of from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (30) days.</li> <li>If NO period for reply is specified above, such period shall, by defending to reply within the set or extended period for reply will, by Any reply received by the Office later than three months after the term adjustment. See 37 CFR 1.704(b).</li> </ul> | s, a reply within the statutory<br>efault, expire SIX (6) MONTH<br>y statute, cause the applicati | minimum of thirty (30) days will<br>S from the mailing date of this o<br>on to become ABANDONED (3 | be considered timely.<br>communication.<br>5 U.S.C. § 133). |
| Status  | 11 0 1  | $\int_{\Omega} d\Omega$  |   |
| Responsive to communication(s) filed on Ab  | 216,2003 (  | perper 7)  | ·   |
| ☐ This action is FINAL.   |   |  |   |
| ☐ Since this application is in condition for allowance excaccordance with the practice under Ex parte Quayle,   |   |  | rits is closed in   |
| isposition of Claims  |   |  |   |
| Claim(s) ————————————————————————————————————   | <u>:</u>  | is/are pending in is/are withdrawn   | the application.  |
| Of the above claim(s) 30-4-5  | <del>-</del>  | is/are withdrawn   | from consideration.   |
| □ Claim(s)  |   | is/are allowed.  |   |
| (Claim(s) 1-29  | is/are rejected.  | _ is/are rejected.   |   |
| □ Claim(s)  |   | is/are objected to   | <b>).</b>   |
| □ Claim(s)  |   |  | striction or election                                       |
| pplication Papers   |   | requirement  |   |
| ☐ The proposed drawing correction, filed on   |   | • •  |   |
| ☐ The drawing(s) filed on is/are of   | bjected to by the Examir  | ier  |   |
| ☐ The specification is objected to by the Examiner.   |   |  |   |
| ☐ The oath or declaration is objected to by the Examine   | f.  | •  |   |
| ri rity under 35 U.S.C. § 119 (a)-(d)  Acknowledgement is made of a claim for foreign prior  All Some* None of the:  Certified copies of the priority documents have be  Copies of the certified copies of the priority documents have be   | en received.<br>en received in Applicatio   | n No   |   |
| in this national stage application from the Internati *Certified copies not received:   | •   |  |   |
| ktachment(s)  |   |  |   |
| Mark Information Disclosure Stat ment(s), PTO-1449, Pape  | r No(s). 5  | ☐ Int rvi w Summary, PTO   | <b>–413</b>   |
|   | . ,   | -  |   |
| <b>\</b>  | r   | 」 N uce of intornal Palent   | Application. PIU-152  |
| Notice of Reference(s) Cited, PTO-892  Notice of Draftsperson's Pat int Drawing Revi w, PTO   |   | ☐ N tice of Informal Patent ☐ Other  |   |

U.S. Patent and Trademark Office PTO-326 (Rev. 11/00)

Part of Paper No.

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1. Applicant's election with traverse of group I, claims 1-29 and 45 in Paper No. 9 is acknowledged. The traversal is on the ground(s) that search for group I & II would not represent an undue burden. This is not found persuasive because search for two groups does impose an undue burden since the claims in these groups fall into different classes and subclasses.

The requirement is still deemed proper and is therefore made FINAL.

- 2. Claims for examination are 1-29 & 45.
- 3. Claim 45 depends from claim 44. Claim 44 is nonelected. Hence claim 45 is withdrawn from consideration.
- 4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 5, 6, 7 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is indefinite in reciting "cold rotational molding at about 200°F" because any molding at 200°F cannot be called "cold molding".

Claim 7 is indefinite since it is not clear if the limitation of hardness is ascribed to the "form" or "pigment or dye".

Similar is the case with claim 29.

Claim 6 is indefinite because "substantially flat" fails to specify how much flat or how much rough.

Same in case with claim 5.

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States
- 6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Arai et al (USP 4638016).

(Arai is of record on PTO-1449, paper 5).

Arai describes process for producing elastic polyurethane. Polyurethanes are prepared from various polyols and polyisocyanates (col. 4, line 37 to col. 5, line 17). Pigments and dyestuffs are used as additives.

Claim 1 therefore lacks novelty.

7. Claims 1-3, 5, 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Graefe (USP 5002475).

Graefe discloses reaction injection injection molding apparatus which is used to mold a shaped article from a polymerizable flowable resin-forming composition (abstract). One such composition has a thermosetting resin such a polyurethane elastomer of viscosity from 50 to 10,000 centipoises (col. 1, lines 49-59; col. 4, lines 41-44; col. 10, lines 24-25).

Disclosure of Graefe, summarized above proves that above claims lack novelty.

- 8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graefe (USP 5002475) in view of Kennedy et al (USP 6290614) and Hirai et al (USP 4367307).

Disclosure of Graefe is summarized earlier.

Graefe does not mention specifically organic pigment or dye (of instant claim 8), and colors (of instant claims 25-28).

Kennedy uses white pigment with polyurethane (col. 2, lines 42-51).

Hirai uses brown pigment with polyurethane elastomer (col. 13, lines 45-46).

Therefore it would have been obvious to use in the composition of Graefe, (a) white pigment (of Kennedy) or (b) brown pigment (of Hirai) or any one or more of other pigments to impart specific color to the molded form or article.

It is noted that prior art is silent about certain limitations of some of above claims.

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Since Graefe teaches mixing of colorants and other ingredients, it is reasonable to infer that the mixing is done uniformly throughout the mass. It is also obvious to use a pigment or a dye of a certain hardness to optimize the appearance and texture of surface of the molded article. It is also obvious (a) to adjust abrasion resistance of molded article so that any protruding material or flash can be removed by grinding with a sand paper (instant claim 12), (b) to adjust the composition to achieve a certain impact strength (instant claim 13) and (c) to adjust certain physical properties (of instant claims 14-23).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to U. K. Rajguru whose telephone number is 703-308-3224. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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U. K. Rajguru July 18, 2003

> James J. Seidleck Supervisory Patent Examiner Technology Center 1700